

Appl. No. 10/807,210
Amdt. Dated Feb. 14, 2005
Reply to Office Action of Jan. 13, 2005

Listing of Claims:

Claim 1 (original): A method for manufacturing an EMI-shielding assembly having a substrate comprising the steps of:

- (a) providing oxygen plasma to clean the substrate;
- (b) ion plating the cleaned substrate with an adhesion layer;
- (c) ion plating the plated substrate with a metal shielding layer; and
- (d) ion plating the plated substrate with a corrosion-resistant layer.

Claim 2 (original): The method of claim 1, wherein the temperature of the substrate should be maintained below 80 °C during the process of ion-plating.

Claim 3 (original): The method of claim 1, wherein the vacuum pressure is maintained between 1×10^{-6} and 1×10^{-8} Torr during the process of ion-plating.

Claim 4 (original): The method of claim 1, wherein step (a) is processed in a vacuum chamber, and oxygen gas is introduced into the vacuum chamber at a volumetric flow rate of between 200 and 2000 standard cubic centimeters per minute (SCCM).

Claim 5 (original): The method of claim 1, wherein in step (b) the adhesion layer is made of nickel or phosphorus nickel.

Claim 6 (original): The method of claim 5, wherein in step (c) the metal shielding layer is made of copper.

Claim 7 (original): The method of claim 6, wherein in step (d) the corrosion-resistant layer is made of stainless steel.

Claim 8 (original): The method of claim 1, wherein the plated substrate is selectively ion plated with a layer of nickel or phosphorus nickel.

Claim 9 (original): The method of claim 8, wherein the plated substrate is ion

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plated with a layer of copper on the nickel or phosphorus nickel layer.

Claim 10 (original): A method for manufacturing an EMI-shielding assembly having a substrate comprising the steps of:

- (a) cleaning the substrate;
- (b) ion plating the cleaned substrate with an adhesion layer made of a first metal material; and
- (c) ion plating the plated substrate with a shielding layer made of a second metal material.

Claim 11 (original): The method of claim 10, wherein after the step (c), the substrate is ion plated with a corrosion-resistant layer comprising stainless steel.

Claim 12 (original): The method of claim 10, wherein in step (a), the substrate is cleaned using oxygen plasma.

Claim 13 (original): The method of claim 10, wherein the first metal material is nickel and the second metal material is copper.

Claim 14 (withdrawn): An EMI-shielding assembly, comprising:
a substrate made of plastic material;
an adhesion layer applied to the substrate;
a metal shielding layer adhered to the adhesion layer of the substrate; and
a corrosion-resistant layer adhered to the metal shielding layer.

Claim 15 (withdrawn): The EMI-shielding assembly of claim 14, wherein the adhesion layer is made of nickel.

Claim 16 (withdrawn): The EMI-shielding assembly of claim 14, wherein the adhesion layer is made of phosphorus nickel.

Claim 17 (withdrawn): The EMI-shielding assembly of claim 15, wherein the adhesion has a thickness of 5×10^{-9} to 10×10^{-9} meters.

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Claim 18 (withdrawn): The EMI-shielding assembly of claim 14, wherein the metal shielding layer is made of copper.

Claim 19 (withdrawn): The EMI-shielding assembly of claim 18, wherein the metal shielding layer has a thickness of 3×10^{-7} to 6×10^{-7} meters.

Claim 20 (withdrawn): The EMI-shielding assembly of claim 14, wherein the corrosion-resistant layer is made of stainless steel and has a thickness in the range of 2×10^{-8} and 20×10^{-8} meters.

Claim 21 (withdrawn): The EMI-shielding assembly of claim 14, wherein said adhesion layer is made of metal.